Small Stock Management and the Goat Naming System of the Pastoral Gabra

AUTHOR(S):

IMAI, Ichiro

CITATION:

IMAI, Ichiro. Small Stock Management and the Goat Naming System of the Pastoral Gabra. African study monographs. Supplementary issue 1982, 1: 43-62

ISSUE DATE:

1982-03

URL:

https://doi.org/10.14989/68306

African Study Monographs, Supplementary Issue 1: 43-62, March 1982

SMALL STOCK MANAGEMENT AND THE GOAT NAMING SYSTEM OF THE PASTORAL GABRA

Ichiro IMAI
Kyoto University

ABSTRACT

The present paper describes and analyzes the pastoral Gabra herding technique for the small stock, sheep and goats, which chiefly support their subsistence diet. Although the sheep and goats utilize different plants for their main food supply, the Gabra herd them in one flock. This paper demonstrates that the Gabra's mixed-flock herding technique is effective and well adapted to their territory's natural environment. This paper also describes the Gabra goat-naming system. The Gabra classify the goats by matrilineal groups and call each goat by its matrilineal group's name. In addition to its group name, each female goat is given an individual descriptive name. This unique naming system facilitates the exchange of information about the goats and the smooth management of milking.

INTRODUCTION

The Gabra are nomadic, and mainly inhabit the Chalbi Desert between Lake Turkana and Marsabit, in northern Kenya. Some Gabra live in the Ethiopian region. The Gabra belong to the Galla group of Eastern Cushitic linguistically (Whitely, 1974), and speak a Boran dialect. Although several other pastoral peoples, the Dasanech, the Turkana, the Rendille and the Somali inhabit around the Gabra territory, the Gabra consider all of them, except for the Boran, as enemies.

These surrounding pastoralists call the Gabra camel herders. Camels are adapted to the arid natural environment of the Chalbi Desert, and are the most useful livestock for transporting hut materials and water for many purposes. However, the Gabra keep few camels and they are not regarded as the most worthiest livestock. Camel milk and meat are part of the Gabra diet, but they are less important than other livestock products. Goat meat and cattle milk are the most favorite food among the Gabra (Imai, 1982). The Gabra value cattle more highly than any other livestock. A Gabra man informed the author that this is similar to the favority of the Boran, who also wish to possess cattle best.

One anthropological study of the Gabra was carried out by Torry (1973, 1976). He demonstrated that several Gabra homesteads are grouped together in a main camp, and that each homestead is composed of a few affined households. He also described the ecology of each species of livestock, and his work is the first ecological study of the East African pastoralists.

The author conducts field research on the Gabra subsistence ecology and livestock management from ecological point for 6 months, from August 1980 to January 1981. A preliminary report on the Gabra subsistence ecology was given in the previous paper (Imai. 1982). In the previous paper, it is described that the subsistence of the Gabra is chiefly based on their goats' products. Additionally, their frequent changes in their residence and herding area are explained by ecological factors.

In this paper, the author explains the mixed-flock management of sheep

and goats that chiefly supports the Gabra subsistence. For the two large livestock, cattle and camels, their life histories were given generally in the previous paper (Imai, 1982). Life styles of cattle and camels are referred roughly in relation to the Gabra territory's natural enviornment.

The Gabra classify their goats into matrilineal groups. Each matrilineal group is named and each goat is called by the common name of its matrilineal group. Only female goats are called binomially by both their individual and group name. This is the first reported examples of a binomial naming system for small stock among the East African pastoralists. The unique naming system and its meaning to their pastoral life will be analyzed.

The Gabra occupies the stony semi-desert as the Rendille do. The Chalbi Desert which covers major part of the Gabra territory has an area of about 10,000 km^2 at an altitude of 500 m. Small lava hills account for the small-scale altitudial changes in the flat Chalbi Desert region. The environs of Marsabit extends to over 1000 m above the sea level. The Gabra do not take an active part in the area.

The annual rainfall, less than 8 inches (200 mm), occurs in two seasons; one between March and May, and the other between September and November (Torry. 1973,1976). The wind comes from the southeast and blows constantly at a speed of several meters per second. There are no streams that flow throughout the year. Immediately after it rains, temporary rivers flow into the Chalbi desert. Since there is little rainfall and the water is distributed unevenly, there are few shrubs and grasses and water-holes are scattered at restricted points.

Due to the scarcity of the vegetation and the surface water, there are few varieties of fauna in this area. The Gabra eat the meat of all mammals in the area, except the hyaena, jackal, and zebra. The Gabra, unlike the Rendille, eat birds and their eggs, although they are in short supply. Itani mentioned the diversity of edible foods for the Turkana (Itani, 1980). Gabra food custom is similar to Turkana except the Gabra never eat zebra.

According to Torry (1973), the Gabra keep 9,000 heads of cattle. Many cattle are kept in the area around Marsabit and in the Ethiopian region. Due to the scarcity of water and pasturage, cattle herding is greatly restricted in the Chalbi Desert where many Gabra people live.

Cattle graze grasses intensively in a fixed feeding area. The main food plants of cattle and camels in the investigated area are listed in Table 1. The food species of cattle clearly contrast with those of camels. Camels chiefly browse Salsola dendroides (durte), while cattle and sheep principally graze different kinds of grasses. Plant identification is based on the work of Dale and Greenway (1961). The number of food species of cattle are not many in the Gabra territory, because their diet is mainly grasses. Herding area of livestock near the investigated camp is shown in Fig.1. The herding areas of the two species are quite different.

Camels, like cattle, are kept in one or two enclosures in the main camp, and are pastured and watered as a group. Although one or two herders tend each small stock flock or a cattle herd, camels were left unattended within 200 m of the investigated main camp except on watering day. This is because of the fact that the total number of adult camels were small, only 21 herds, and that herders were not enough in the camp. The camels were herded only when they were turned to the enclosures. When the growing area of food plants is restricted near the camp, camels are pastured all day without a herder. In a camel satellite camp (fora garr), one or two herders herd their camels everyday.

Table 1. Food plants eaten by camels and cattle

	Vernacular name	Scientific name	Camel	Cattle
tree	ade	*Salbadola persica*	+	
	defuku	?	+	
	ilam	?	+	
shrub	agagaro	?	+	+
	abalkaba	?	+	
	asura	?	+	
	chanchali	*Combretum denhardtiorum*	+	
	durte	*Salsola dendroides*	+	
	jilbete midisiti	*Dasysphaera prostrata*	+	
	madehl	*Cordia quarensis*	+	
	qoratigarra	*Indigofera coeruba*	+	
herb	alla	?		+
	dubarara	?	+	
	lamisho	?	+	
grass	arfuk	?		+
	buyu	?		+
	iddimar	?		+

HERDING ECOLOGY OF SMALL STOCK

Goat products occupy a major portion of the Gabra diet, as stated in the previous paper (Imai, 1982). Since the Gabra possess few large livestock, their diet is not dependent on cattle and camels. As is shown in Table 2, the total number of cattle and camels possessed by the married men of the investigated camp is small and unevenly distributed.

This section presents sheep and goat herding and management techniques. Sheep and goats have an average life span of 7 years. They become sexually active by the end of their first year. Their gestation period is about 5 months. Females give birth every year, and their birth season is not clear. They give the first birth in their first or second year. Twin birth were observed more frequently among goats than among sheep in the investigation period, which corresponds to the descriptions of Dahl and Hjort (1976) and Devendra (1978).

Males are castrated before they are 6 months old, although one or two breeding males are left in each flock. There are two methods of small stock castration; one is to cut testicles with a knife, and the other is to cut deferent ducts above the scrota with a wooden mallet called tuma (Fig.2). The effects of these two methods are the same and the males grow fat after the castration. The bloodless castration with tuma is usually selected for small stock.

The bloodless castration with tuma is described here briefly. Tuma is usually made of Cordia quarensis (madehl). A man grasps the forelegs of an animal and turns it on its back. Another man trample the animal's hind leg under his foot. A stick is placed under the scrotum and tapped several times with the mallet, tuma. Afterwards, the man pours a little milk on the used tuma, and places it on the enclosure of his flock. This castration method with tuma is easier and less troublesome than the knife method, and appropriate for small stock like sheep and goats.

The Gabra classify their sheep and goats by age and sex as shown in Table 3. Female names are the general terms for both livestock differing

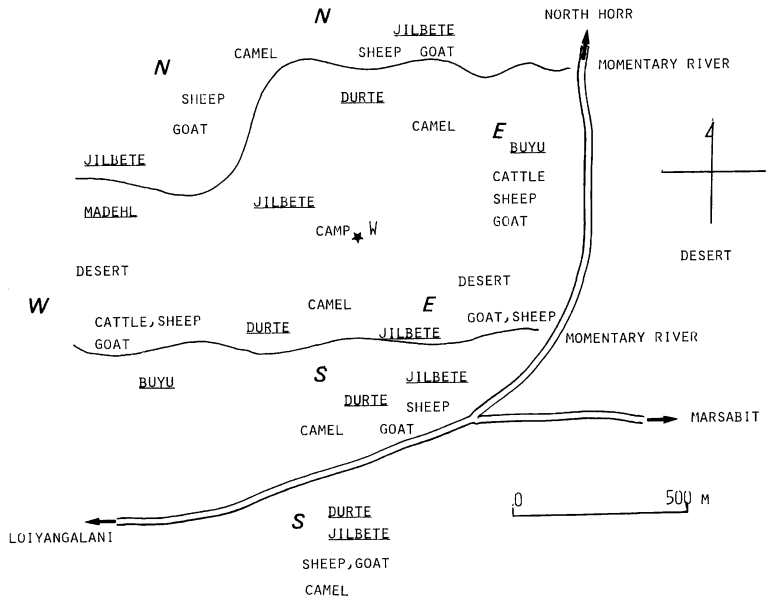

Fig. 1. The distribution of the livstock herding area and the major food plants.

Table 2. Number of large livestock possessed in the study camp

Livestock		Married man						
		A	B	C	D	E	F	G
camel	male	1	0	0	0	0	0	0
	castrated male	2	2	3	0	2	2	1
	female	1	0	0	2	4	0	1
	infant	0	0	0	1	2	0	1
cattle	male	1	0	0	0	0	0	0
	castrated male	3	7	?	4	0	1	0
	infant	5	3	1	0	0	0	0
donkey		2	0	3	0	0	0	0

from the cattle and camel classification system (Table 4). Each owner pastures his sheep and goats as a group. There are about 130 animals in one flock.

Milking of Sheep and Goats

Sheep and goats like cattle and camel are milked twice a day, in the morning and in the evening. Goats' milk supplies the major part of the small stock milk consumed in a household. Although sheep are also milked, sheep's milk is not used for household members, only for unexpected guests (Imai, 1982). One goat gives milk for person about 100 ml a time. The number of females milked varies a little each day. According to the author's observation, the average amount of milk from one flock per

Table 3. Classification of sheep and goat

	Sheep	Goat
in general	*olichi*	*lales*
male	*elemo korma*	*korbeji korma*
castrated male	*elemiji*	*korbeji*
parous female	*olichi*	*lales*
nulliparous female	*kar sole*	*ilmele*
immature male	*elemiye*	*korbeji*
infant	*mole ola* or *emole*	*mole lalesa* or *emole*

Table 4. Classification of camel and cattle

	Camel	Cattle
in general	*garr*	*lon*
male	*kingele*	*jibicha*
castrated male	*rotcho*	*sanga*
parous female	*orge*	*rada*
nulliparous female	*goloms*	*goloms*
greeding female	*arra*	*sah*
male infant	*gurbo*	*yabi*
female infant	?	*yabi*

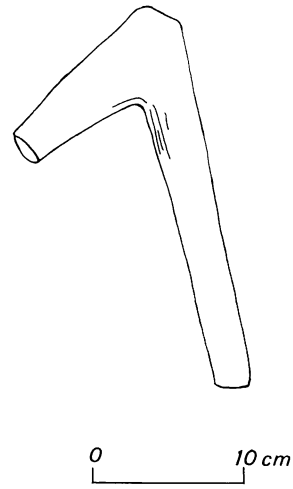

Fig. 2. Tuma.

milking time is estimated approximately at 1.5 liters.

The milking methods of sheep and goats are different. For goats, a married man picks out an infant from the infant enclosure (mona emole), and calls the name of its mother. When the mother goat comes, he turns

the infant to his wife and children who then make sure that the infant suck its mother. Although only new-born infants, kept all day in a separate enclosure are individually picked out and allowed to suck their mothers, other infant sheep are not allowed to suck during milking. Infant sheep must wait until the main flock enters into the enclosure of the main camp in the evening, then the infant sheep enclosure is opened. Infant sheep are allowed to approach their mothers and suckle all night. They are herded into the infant enclosure again in the next morning before the departure of the main flock.

Generally, infant goats are treated more carefully than infant sheep. According to the Gabra, infant goats are more vulnerable than infant sheep to sunlight. If infant goats are exposed to the sun for four hours, they will die. Therefore the Gabra carefully avoid herding infant goats for a long time in the sun. When the camp relocates, the infant goats are separately cared for by an old man and children, while infant sheep are herded with the main flock.

The morning milking is between 6:30 and 7:30, while the evening milking is between 19:00 and 21:00. When food plants are abundant near the camp, the flocks are pastured temporary near the camp from 6:00 or 7:00 and morning milking is delayed until about 9:00 or 10:00. After the milking, the flocks are then herded until the evening. Table 5 indicates the dalayed milking time recorded in a satellite camp of sheep and goats (arjalla) shortly after a new camp was established. As the pastureland grows worse, the flocks are milked before they start out to the pastureland. The Gabra point out that they obtain more milk when the flocks feed in the morning before milking. Before the pasture near the camp is overgrazed, the Gabra seek out other pastures farther away from the camp. The area near a camp is left to stock infants without a herder.

Daily Herding of Sheep and Goats

The son or daughter of the owner, usually herds his flock everyday. If neither the owner nor his children can herd his flock one day, another man's child will tend it. When a man needs an extra herder, he must ask around on the previous day. Flocks are herded from about 7:00 to 19:00 everyday except the watering day.

The pastureland of a flock is often changed to a particular area, based on the availability of food plants and the distribution of other camps and their livestock. When people feel it is time to relocate their camp, one or two adult men go out and investigate new pasturelands, the concentration of other camps and livestock, and the quantity of available water. As reported in the previous paper, this scouting excursion is called abuhl (Imai, 1982). Men who have the experience of abuhl well understand the vegetation around the camp, the quantity of available water and the degree of concentration of other camps and livestock.

In the particular main camp under investigation, there are 6 flocks, each was owned by a married man. The flocks were herded in different areas. The flocks in the investigated camp were widely pastured rather than concentreted in a single area, which is clearly shown in Fig.1 and Table 6. This practice ensures that the vegetation can support the flocks for a longer period. Although the flocks are herded near the camp immediately after a camp migration, the herding area is gradually enlarged as the pastureland deteriorates. As the time requires, two or three men go on an abuhl. Thus, it can be inferred that the main reason for migration is the deterioration of usable pastureland. Indeed, all observed migration occurred for this reson.

According to the author's observation, a herder does not intervene in his flock frequently except that he left his flock start to the day's pastureland with the owner in the morning. This accords with goats

Table 5. The time of the mornig milking in a new satellite camp in December 1980

Date	Time record		
	Start	Returning	Milking
19	?	8:50	-9:30
20	6:35	8:20 (1 herd)	-8:50
		9:05 (2 herds)	-10:05
21	6:36	8:30	-9:30
22	?	N	6:30-7:15
24	8:10	N	7:20-8:00
25	7:50	N	6:30-7:40
26	7:50	N	6:30-7:30
27	8:00	N	6:35-7:40
28	7:40	N	?

N, not returned.

herding of the Turkana described by Ohta (1981). He described that the herder of the Turkana does not intervene his flock frequently. However, the Gabra do not let their flocks without intervention. Herders try to keep their flocks in better pastureland to feed there intensively. They think sheep and goats should put on fat and feed only in the good pastureland. Their ideas about herding can be gleaned from their comments on Turkana and Rendille herding. They criticize the Turkana herders take naps soon after they depart from camp and must search for the flocks when they wake up. On the other hand, the Gabra say the Rendille drive their flocks too hard and with so much shouting that the flocks do not eat enough. Even small children know these opinions, and they are frequently recounted during herding.

While the flocks often encounter each other during pasturing, they do not mix. Sheep and goats in each flock comes too close, the herders changes its course by shaking his stick or clicking his tongue. The sheep and goats react immediately, stop their feeding, and begin to advance. Occasionally, when animals from different flocks intermingle, the herders must separate the flocks because they fear that the flocks will intermix entirely.

During the investigation, two small stock flocks in a satellite camp (arajalla) were enclosed together because there were not enough herders. These flocks were herded together, although they pastured separately in adjacent area. At night, the herders drove flocks into the enclosure one after another from the different gates, and the flocks rested in two different clusters. In the morning, each flock was driven out from its same evening gate. Somali merchants sometimes buy sheep and goats and herd the animals from many flocks as a unit for a short period. In such cases, the flock becomes ragged, because the castrated males become nervous and walk faster than the other animals.

The sheep and goats of the same flock act in much different ways. In an enclosure, sheep group in a cluster while the goats disperse at random. Each day around noon, the herders rest their flocks for an hour in the shade of a tree. They either rest with the flock or, if the herding area is close to the camp, they return to their hut for a cup of tea. In the shade, the sheep and goats rest in different ways. The goats tend to disperse and crouch to rest, while most of the sheep cluster and stand with their heads lowered. The sheep rarely crouch. The sheep standing

Table 6. Direction of daily herding area of each flock in the investigated camp in Sep. 1980

Flock	Date																				
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
A	S	-	E	N	NE	-	-	-	-	-	-	N	-	-	E	-	-	SE	SE	N	S
B	S	-	-	S	N	-	S	N	N	N	-	-	N	SE	N	-	-	SE	SE	-	N
C	N	W	S	N	SW	-	N	N	N	-	-	-	N	E	-	-	-	-	-	S-	S
D	W	-	S	-	N	S	-	-	N	-	-	S	-	-	-	-	-	-	S	-	-
G	E	-	SE	NE	-	-	-	-	-	-	-	-	-	-	-	-	S	N	-	N	-

-, Uncofirmed; N, North from the camp; E, East; S, South; W, West.

outside the flock turn their heads away from the flock.

Sheep and goats also act differently when they move from sandy places to pastureland. They advance in a line without pasturing. Many of the goats cluster at the front of the line, while the sheep follow them one by one (Fig.3).

In the afternoon herders pasture their flocks and gradually lead them to the camp. Many herdgirls fill their small water containers (sololo, Fig.4) with diluted milk or tea. The herders sometimes milk the sheep or goats a little to quench their thirst. The flocks return to the place near the camp by 17:00 to 18:00. When the flocks are at a spot near the camp, the people in the camp put the small stock infants, which have been feeding near the camp, into the infant enclosures (mona emole). The herders drive their flocks into the enclosure after all the infants are in the mona emole.

Sheep and goats are herded in a mixed flock all day, and do not separate completely in the pastureland. Herders do not disturb the flocks for fear of separating the two species. Their food supplies in the investigated area are not completely different (see Table 7), but they do not eat the same plants in the same way. Goats browse while sheep are mainly grazers. For example, goats feed on all of Dasysphaera prostrata (jilbete midisiti) while sheep feed on only the leaves that are below their heads. Thus even though goats can walk faster than sheep, the sheep tend to move ahead of the goats because they spend much less time at each plant. However, this process is reversed in the grasslands, the sheep spend much more time grazing on the grass and the goats tend to move ahead. Thus the speed of advancement for the two species tends to balance each other out. As each species feeds on its favorite plant, it shows down and the other species move ahead. This maintaines a spatial unity between the sheep and goats which ensures that the species are herded as a group.

Watering

The Gabra call livestock watering ohba. Sheep and goats are watered every 4 days. Table 8 shows the watering dates for a small stock satellite camp (arjalla). Figure 5 shows locations of the wells used for small stock watering. As in the North Horr, livestock may be watered at large pools of water, howerver, many livestock are usually watered at small well. Each well (el) is named after the man "A", who first dug it and used water from it, hence el "A".

On the watering day, one or two men go directly to the well before the flocks depart. The number of cattle milk containers, ohole (Fig.6) they take, depends on the depth of the well. When they arrive at the well,

Table 7. Sheep and goat's food plants

	Vernacular name	Scientific name	Sheep	Goat
tree	defuk	?	+	+
	ilam	?		+
	salim	*Acacia bussei*		+
shrub	abalkaba	?		+
	agagaro	?	+	+
	asura	?		+
	chanchali	*Combretum denhardtiorum*	+	+
	chinchilis	?	+	+
	deka	*Grewia tenax*		+
	galgalo	*Cadaba adenotricha*		+
	idado	*Acacia senegal*		+
	jilbete midisiti	*Dasysphaera prostrata*	+	+
	madehl	*Cordia quarensis*	+	+
	qoratigarra	*Indigofera coerua*	+	+
herb	alla	?	+	+
	armaja	?		+
	balambalu	?		+
	buke	?		+
	dubarara	?	+	+
	korsyata	?		+
	lafqabate	?	+	+
	lamisho	?	+	+
	qubo	*Heliotropium steudneri*		+
	qokomishi	*Heliotropium albohispidum*	+	+
grass	buyu	?	+	+
	iddimar	?	+	+
	ilmogol	?	+	+
	koncholo	*Stipagrostis uniplumis*	+	+

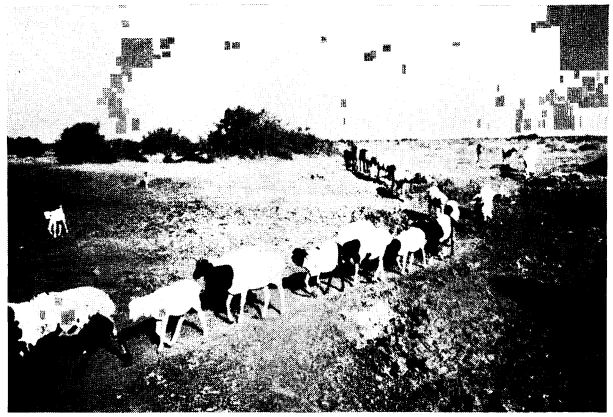

Fig. 3: Sheep and goats advancing through the desert.

they repair a livestock watering pipe, called nanika (Fig.7). Although another type of watering pipe made from Phaenix reclinata (meti) is used occasionally, most of the pipes are made from clay obtained near the well. After repairing the pipe, the clay is kneaded with water, and plastered all over the pipe. This work takes between 30 and 40 minutes. The pipe repairs are usually finished before the flock arrives.

After the flocks arrive, two or three men descend into the well, draw water in the ohole, which is then transferred from hand to hand and poured into the nanika. They usually do this work singing a song with a slow rhythm. Women also transfer ohole.

Herders keep their flocks 100 to 200 m away from the well, and water them in a pre-arranged order. There is a small, rough enclosure, about 100 m from the well. The enclosure has two 2-3 m wide gates, on either side of the well. Herders let the first flock into the enclosure then block the entrance with a branch. A herder stands on the other gate lest the flock should advance all together to the well. When they are ready to water, a man at the well yells to the herders in the enclosure. A herder standing on the other gate allows between 10 and 20 heads to run to the well. They struggle towards the well (Fig.8), drink water from the nanika for about a minute, then gather under a tree near the well. When the number of sheep and goats drinking at the nanika decreases, the man again yell to the herders and they let another 10 to 20 heads run to the well. The next flock enters the enclosure only after the previous flock has left completely. The herders drink and wash themselves after watering the entire flock.

Herders let their flocks walk near the nanika after all the flock have been watered, and the sheep and goats who are still thirsty can drink again. After watering, each herder goes back to his camp leaving his flock to pasture. The Gabra call this watering process at wells murni.

Cattle herds are also watered at wells by the murni process. Although a cattle herd is also kept at the spot 100 m from the well, it does not enter the enclosure like small stock. Herders continue to obstract the cattle's approach to the well by shaking their sticks but allow 5 to 6 heads to go to the well.

At a large pool of water like North Horr where all the flock or herd can be watched at once, the murni process is not followed. Men plaster a little clay on the surface of the nanika to repair it and leave the well after watering. As stated above, the Gabra herd their flocks which contain

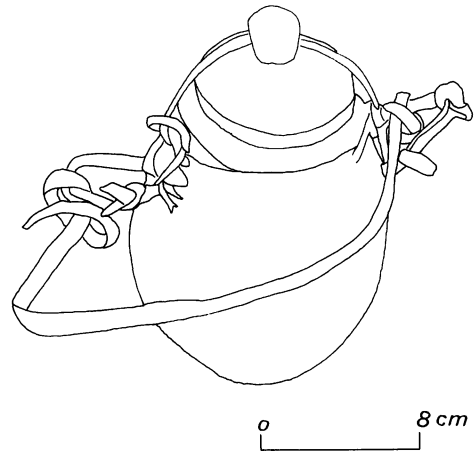

Fig. 4. Sololo.

Table 8. Date of livestock watering at a satellite camp

Flock	Dec. 1980													Jan. 1981		
	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3
A, B & G	+			+					+				+			+
infant			+					+					+			

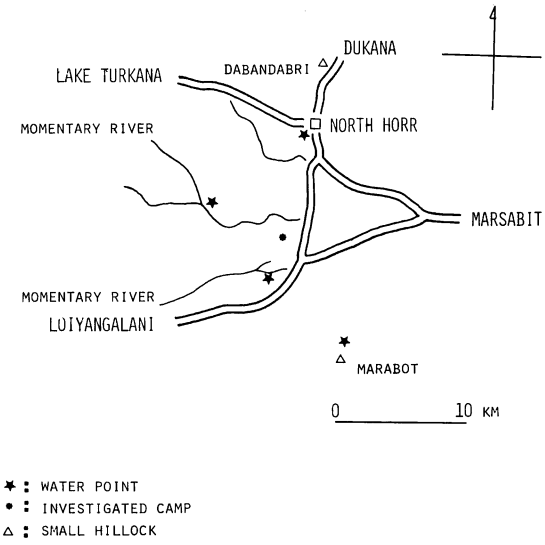

Fig. 5. Locations of wells for small stock.

large number of sheep and goats efficiently through the unique murni process at wells with limited water.

THE GOAT-NAMING SYSTEM

Several authors (Evans-Pritchard, 1940; Umesao, 1966, 1969; Kobayashi, 1980) have described individual and classificatory naming systems for large livestock like cattle. However, individual naming systems for small stock like sheep and goats have never been reported, except for Honda's report (1967) on Bedouin camels and small stock in Saudi Arabia. In this section, the author reports on and considers of the Gabra's classificatory and descriptive naming system for goats. The Gabra keep several kinds of livestock other than goats. Although each cow has its own individual name that is called during milking, only goats have a distinctive naming system.

The Gabra explain that a goat is named after its mother, so a name is passed through the generations from a female to her offspring. Each matrilineal group or min has one common name, and the Gabra recognize all goats with the same name belonging to one matrilineal group in a

flock. Each matrilineal group is called after its common name A, e.g. min A. Sato (per. comm.) informed the author that the Rendille also classify their goats by matrilineal groups. A Boran informant told the author that the Boran, like the Gabra, classify the goats' matrilineal groups as well.

People call male goats by the name of their matrilineal groups. Only female goats have the name of their matrilineal groups. The females' first name is its matrilineal group name, and the second name is a term of fur color of physical characteristic.

Fig.9a shows the blood-ties of the goats possessed by man B, a member of the investigated camp. The first names indicate the matrilineal group while the second names are for females. The second name is used as a term of endearment. There are many goats which have the same second name (see Fig.9a & 9b). Terms for fur color are frequently used, for example, adi means white, dimtu brown, ble grey, and grati black. Terms for the fur pattern, such as magal and shaf (see Fig.9a), may also be selected as the second name. Terms indicating other physical characteristics, such as moyeti, are also selected.

The name adio moyeti is given as an example. The first name adio is the name of the matrilineal group. Adi means white in the Borana language, and can be used as a second name (see Fig.9a). Adio means a white individual, but the name is passed down through the generations regardless of the actual color of the individual goat. Moyeti is actually hornless, this name, unlike adio, is derived from actual physical characteristics. Different from adio, the name moyeti is derived from its actual physical characteristics.

When the Gabra call each female goat by its name at milking, the second name is usually omitted. The second names are mainly used as a means of discriminating the goats beonging to the same matrilineal group. It can be pointed out that information about the individual goat is dilivered easily through the distinctive and decriptive second name.

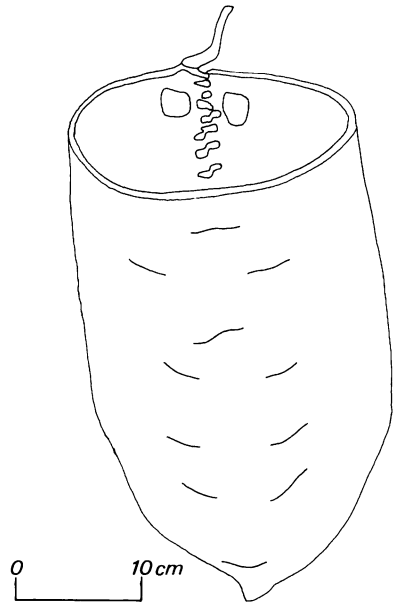

Fig. 6. Ohole.

Fig. 7. Nanika.

Fig. 8. Goats starting toward the well from the small enclosure.

According to this description, the first name and the second name are essentially different. The first name is based on blood relationships while the second name is only descriptive.

Tani (1976) mentioned the following four criteria by which livestock are classified: sex, age, castration, and leader of a herd.

Table 3 indicates that the Gabra small stock are classified by all Tani's criteria except the fourth criterion. The author presents another criteria for classification of goats; among the Gabra, goats are classified according to their matrilineal groups.

Concerning cattle naming systems, Umesao (1966, 1969) pointed out the three naming principles of the Datoga in Tanzanania as follows: 1. A cattle is called after its mother. 2. A cattle is called after its physical characteristics. 3. A cattle is called after its life history.

Adio of the name adio moyeti follows the first of Umesao's principle,

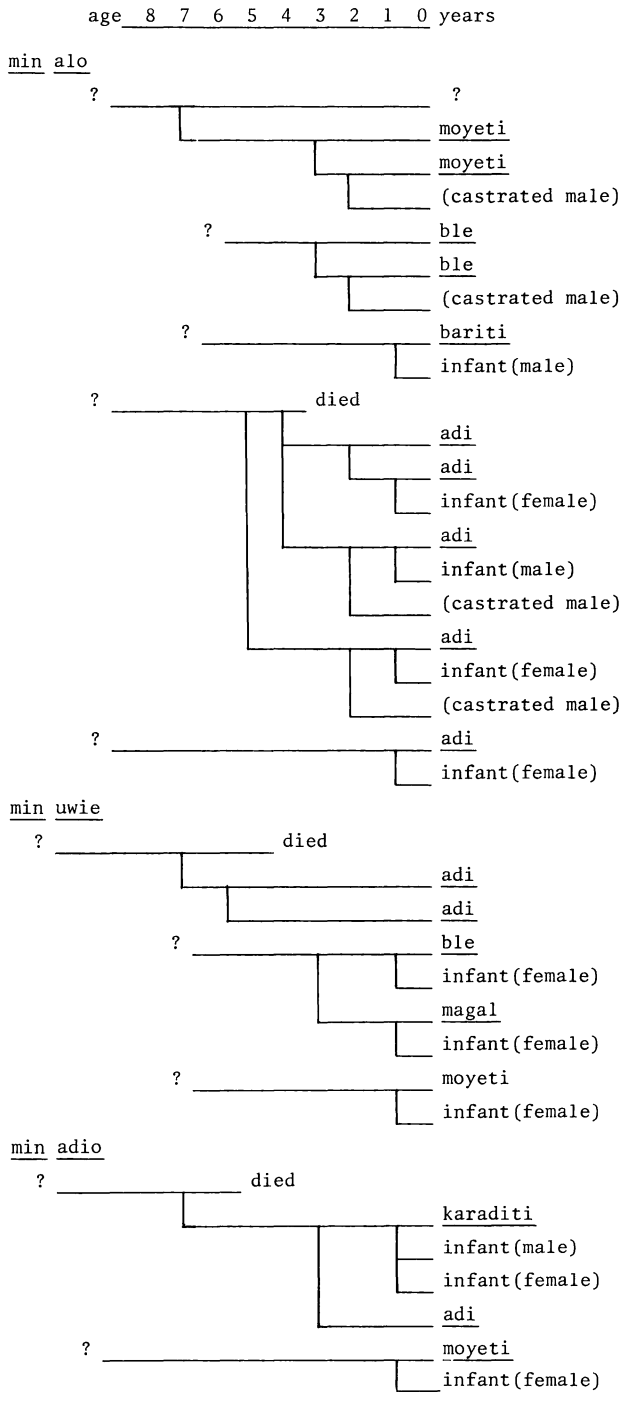

Fig. 9a. The name of the goats' matrilineal groups and the females' individual names in the study camp (flock B).

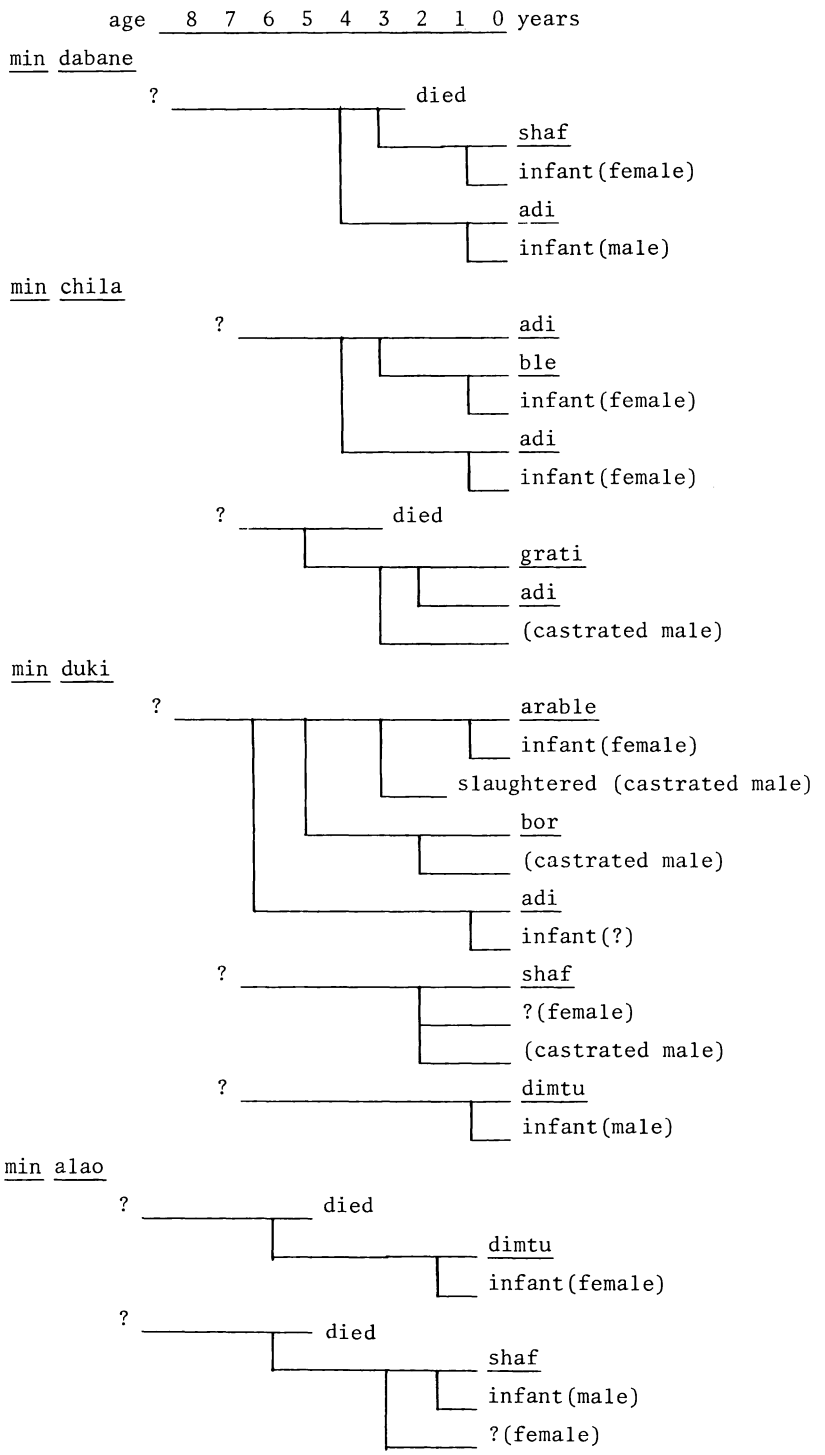
age 8 7 6 5 4 3 2 1 0 years
min dabane
?
died
shaf
infant(female)
adi
infant(male)
min chila
?
adi
ble
infant(female)
adi
infant(female)
?
died
grati
adi
(castrated male)
min duki
?
arable
infant(female)
slaughtered (castrated male)
bor
(castrated male)
adi
infant(?)
?
shaf
?(female)
(castrated male)
?
dimtu
infant(male)
min alao
?
died
dimtu
infant(female)
?
died
shaf
infant(male)
?(female)

Fig. 9a. (conti.)

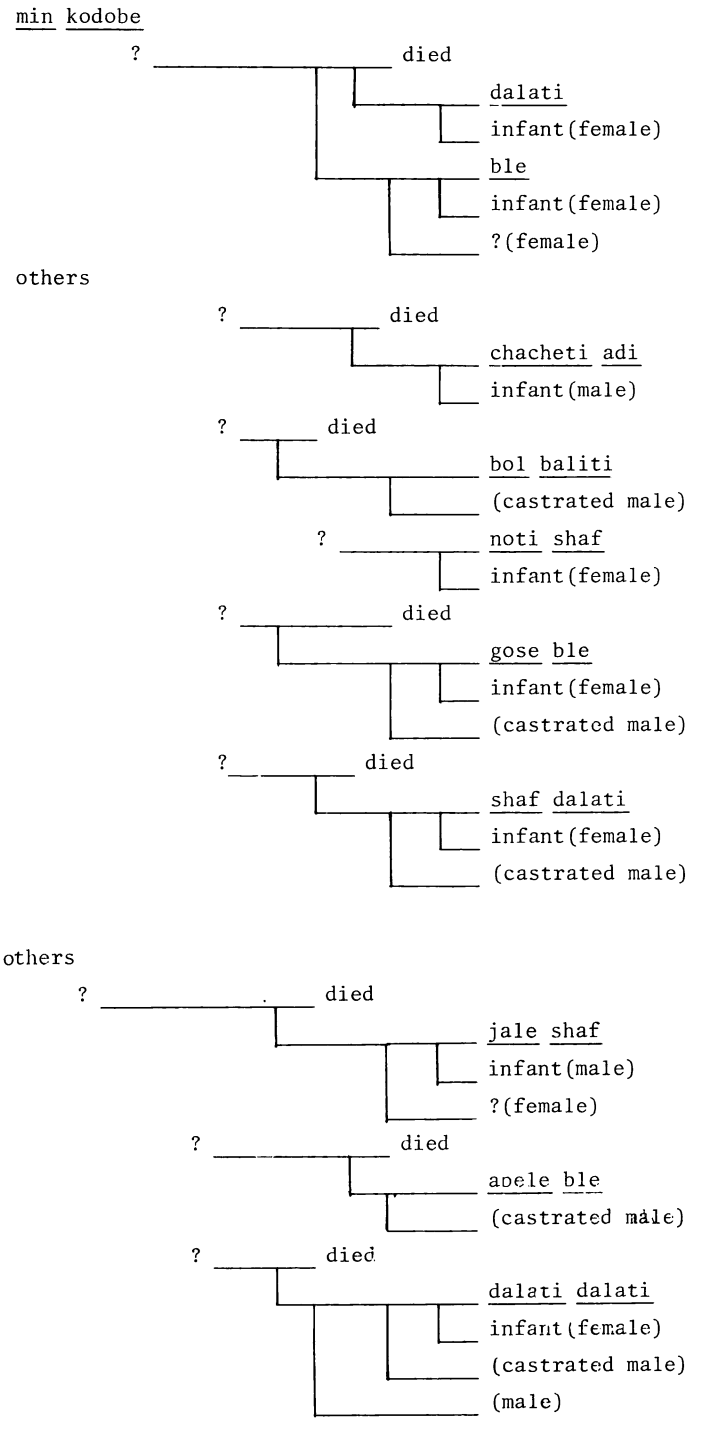
min kodobe
?
died
dalati
infant(female)
ble
infant(female)
?(female)
others
?
died
chacheti adi
infant(male)
?
died
bol baliti
(castrated male)
?
noti shaf
infant(female)
?
died
gose ble
infant(female)
(castrated male)
?
died
shaf dalati
infant(female)
(castrated male)
others
?
died
jale shaf
infant(male)
?(female)
?
died
apele ble
(castrated male)
?
died
dalati dalati
infant(female)
(castrated male)
(male)

Fig. 9a. (conti.)

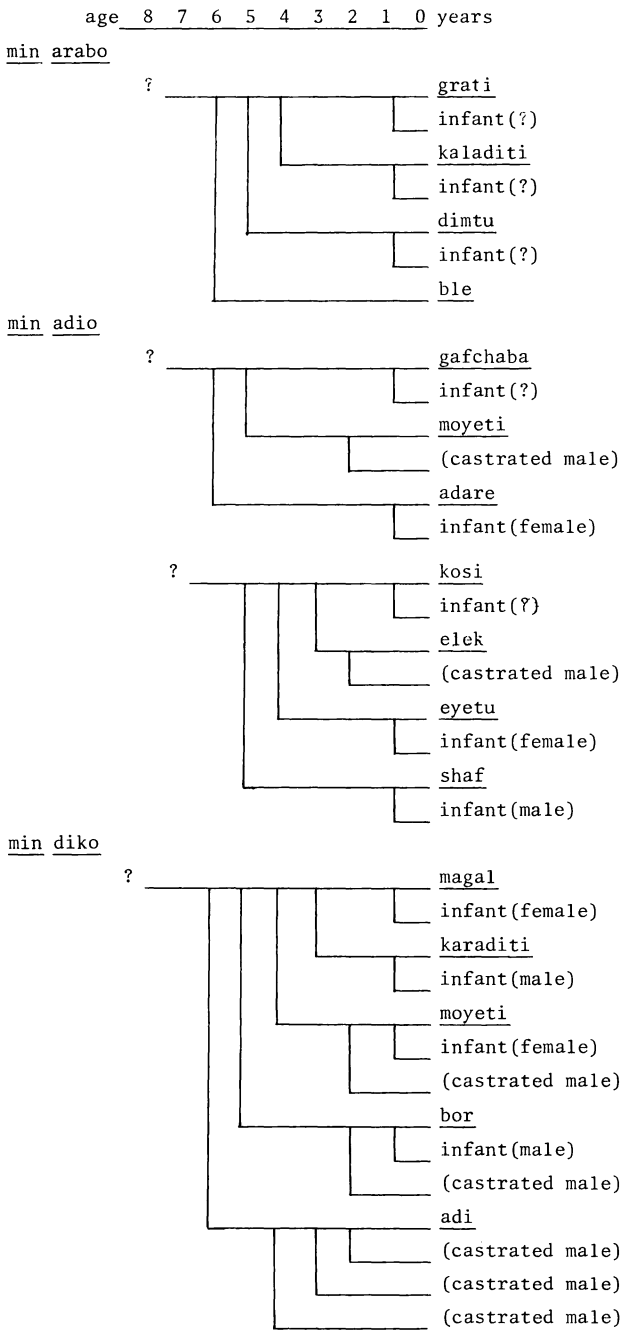

Fig. 9b. The names of the matrilineal groups and the individual names in the flock A.

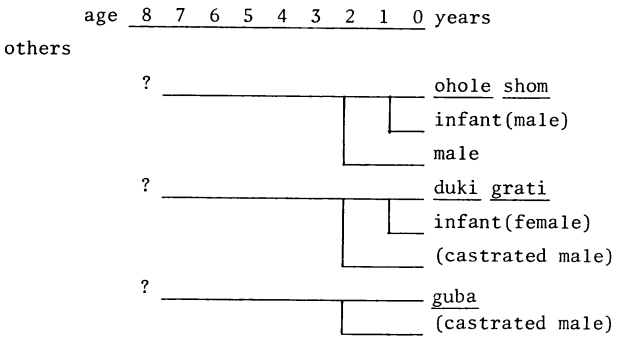

Fig. 9b. (conti.)

while moyeti follows the second principle. Fig.9b show the blood-ties, the matrilineal groupings and the second names of the female goats of a different flock. In this flock, one goat is named ohole shom because its female ancestor was obtained in exchange for a cattle milk container ohole. This name follows Umesao's third principle of naming after the life history. As described above, the foundation of Gabra goat-naming is similar to that of Datoga cattle naming. However, the systems are different because the Gabra pass down each matrilineal group's common name from generation to generation.

Umesao (1966,1969) stated that an individual name for a mother-infant unit produces an effect that induces milk from a mother cow during milking. The similar naming of a mother-infant unit enables the Gabra to milk the goats effectively in the limited time before and after pasturing. Each goat recognizes its name, especially its first name, or matrilineal group name. When called by its first name, it immediately approaches the caller (Fig.10). During their infancy, both males and females are called by their matirlineal group names. Although second names are given to females by their matrilineal group names throughout their lives. People do not meed to be individually called.

Umesao (1966,1969) reported that Datoga cattle are owned by a man and allotted by him to each of his wives and their children. They carn their living from the products of the allotted cattle. In the Gabra society, allotment of goats to each wife has not been confirmed, although the author did confirm that a man allotted a whole matrilineal group of his flock to one of his sons. The owners and his houshold decided that all goats named diko (see Fig.9a) should be allotted to his second son (10 years old). It is clear that the first name, that of the matrilineal group, is used not only in milking, but also as a means of transmitting information about the goats within the household.

In contrast with goat naming, sheep are referred to only by their fur color, fur patterns and other physical characteristics. The Gabra do not recognize a matrilineal group of sheep quite different than to the goats who are the main providers of their subsistence.

Fig. 10. A called goat approached a herder.

ACKNOWLEDGEMENTS

The investigation was financed by the Scientific Research Fund of the Ministry of Education, Japan. I am grateful to Prof. B.E. Kipkorir, Director of Institute of African Studies, University of Nairobi, who supported me as a research associate of the Institute. At the initial stage of this research, for two months, I was indebted to Dr. R. Harako of Meiji University, and he kindly showed me his data after our research. I wish to express my gratitude to Prof. J. Tanaka of Hirosaki University, who supported me from the initial planning of the research to the writing up of this paper. I am also grateful to Prof. J. Itani of Kyoto University, Director of this expedition, and the other expedition members who throughly supported my study. Thanks are also due to Dr. M. Ichikawa for his kind advice in the preparation of the manuscript. I also wish to thank Fathers Francis and Richard, of the Catholic Mission of North Horr, who kindly helped me. Finally, I also wish to express my thanks to the Gabra for accepting me into their camps and replying to my inquiries.

REFERENCES

Dahl, G. & Hjort, A., 1976. Having Herds, Pastoral Herd Growth and Household Economy. Universtiy of Stockholm, Dep. Soc. Anthropology.

Dale, I.R. & Greenway, P.J., 1961. Kenya Trees and Shrubs. Buchanan's Kenya Estates, Nairobi.

Devendra, C., 1973. Goats. In: An Introduction to Animal Husbandary in the Tropics, 3rd ed, G. Williamson and W.J.A. Payne (eds.), pp.463-483

Evans-Pritchard, E.E., 1940. The Nuer. Clarendon Press. Nuer Zoku, M. Motoko (trs.), Iwanami. (in Japanese)

Honda, K., 1967. Arabian nomads. In: Restricted People. The Asahi Press. (in Japanese)

Imai, I., 1892. Subsitence ecology of the pastoral Gabra: A Preliminary report, African Study Monographs, 2.

Itani, J., 1980. Natural History of the Turkana: The Harsh People. Yuzankaku, Tokyo. (in Japanese)

Kobayashi, S., 1980. Naming and indication of livestock. In: Issues on the Methodology of Anthropology, Y. Tani (ed.), Research Institute of Humanistic Studies, Kyoto University, pp.65-95. (in Japanese)

Ohta, I., 1981. The Organization of herding: The Pastoral Turkana in northern Kenya. Anima, 102:13-18, Heibonsha. (in Japanese)

Tani, Y., 1977. An Inquiry into the pastoral culture: Interaction between herder and livestock, and its metaphor. The Zinbun Gakuho, 42:1-58 (in Japanese)

Torry, W.I., 1973. Subsistence Ecology among the Gabra Nomads of the Kenya/Ethiopia frontier. Ph D. Thesis, Columbia University.

Torry, W.I., 1973. Resistence rules among the Gabra nomads: Some ecological considerations. Ethnology, 15(3):269-285.

Umesao, T., 1966. Families and herds of the Datoga pastoral society. In: Man: Anthropological Considerations, J. Kawakida, T. Umesao and S. Ueyama (eds.), Chuo-koron, pp.423-463. (in Japanese)

Umesao, T., 1969. Families and herds of the Datoga pastoral society: An Analysis of the cattle naming system. Kyoto University African Studies, 1:173-206.

Whitely, W.H., 1974. The Classification and Distribution of Kenya's African language. In: Language in Africa, W.H. Whitely (ed.) Nairobi:Oxford Univ. Press.